

# UNITED STATES PATENT OFFICE.

JOSEPH MAYER, OF BEAVER FALLS, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ERNEST MAYER, OF SAME PLACE.

## IMITATION COAL.

SPECIFICATION forming part of Letters Patent No. 332,726, dated December 22, 1885.

Application filed October 5, 1885. Serial No. 179,079. (No specimens.)

*To all whom it may concern:*

Be it known that I, JOSEPH MAYER, a subject of the Queen of Great Britain, and having declared my intention of becoming a citizen of the United States, and a resident of Beaver Falls, in the county of Beaver, in the State of Pennsylvania, have invented certain new and useful Improvements in Imitation Coal, of which the following is a specification.

My invention consists in an imitation coal to be used with stoves, fire-places, artificial fire-logs, or in connection with any other suitable heater in which gas or liquid fuel is burned; and the object of the invention is to produce an article of this character which will withstand a great amount of heat without being injuriously affected thereby, and which has the appearance of natural coal.

Heretofore it has been common in gas-burning heaters to make them in the form of boxes of various shapes, with surfaces to resemble either coal or wood, and thus give the fire a cheerful and natural appearance, and it has also been common to mold or cast such heaters with smooth surfaces and to use them in connection with an imitation fuel spread upon them, the heaters having perforations through which the gas could readily escape and burn. The substances heretofore thus used are brick, pumice-stone, iron balls, plumbago, &c., none of which resemble stone-coal, and all are useless as imitations of natural fuel, and many are expensive. To overcome these objections I make an imitation coal of clay or equivalent material, molded or otherwise suitably shaped to resemble lumps of coal, and then covered with an opaque glazing, and burned or subjected to an intense heat to thoroughly harden the clay and vitrify the glazing. The body of the article thus made is open in texture, or sponge-like, and will withstand a very great amount of heat without being injuriously affected thereby, as is apt to result from the expansion and contraction of articles of a more compact

character. The body portion may be first biscuit-baked or hard baked and the enamel then applied and burned on; or the enamel may be applied to the body before the latter is baked, and both may be burned together, the vitrification of the enamel imparting to the article a surface finish resembling that of natural coal.

The imitation coal thus produced is very cheap, easily manufactured, and retains its brilliancy and natural appearance for an indefinite length of time, whatever may be the temperature to which it is subjected.

Instead of clay, the body may be of any other refractory material or composition—as asbestos compositions, cement compositions, &c.—and any suitable vitreous enamel may be used. In actual practice I have used a black enamel made of feldspar, flint, lead, boracic acid, oxide of zinc, chromate of iron, oxide of cobalt, oxide of nickel, and china-clay, as I have found it much superior to ordinary enamels.

I claim—

1. As a new article of manufacture, an imitation coal consisting of irregular blocks of baked ware covered with an opaque glazing, substantially as and for the purpose set forth.

2. An imitation stone-coal consisting of blocks of porous earthenware having a hard black smooth coating, as set forth.

3. An imitation of stone-coal having a clay body, and an enamel consisting of a vitrified composition of feldspar, flint, lead, boracic acid, oxide of zinc, chromate of iron, oxide of cobalt, oxide of nickel, and china-clay, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH MAYER.

Witnesses:

E. F. GALLAGHER,  
W. L. WHITTAKER.